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(54) **METHOD FOR PREPARING CARBON NANOTUBE FIBERS WITH IMPROVED SPINNING PROPERTIES USING SURFACTANT**

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(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

The present invention provides a method for preparing carbon nanotube fibers with improved spinning properties using a surfactant and carbon nanotube fibers prepared by the method. According to the method for preparing carbon nanotube fibers of the present invention, the addition of a surfactant during the preparation of carbon nanotubes interrupts and delays the agglomeration of catalyst particles, which reduces the size of the catalyst particles and uniformly disperses the catalyst particles that play a key role in the formation of carbon nanotube fibers, thus increasing the strength and conductivity of carbon nanotube fibers and improving the spinning properties. While convention methods prepare carbon nanotube fibers by injecting a catalytic material for the synthesis of carbon nanotubes in a high-pressure supercritical state to be uniformly dispersed, the present invention uses a dispersant and thus does not require the injection in a high-pressure supercritical state.

11 Claims, 4 Drawing Sheets